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DIGGER WASPS OF THE GENUS *BEMBIX* FABRICIUS, 1775 (HYMENOPTERA: CRABRONIDAE, BEMBICINAE) OF RUSSIA AND ADJACENT TERRITORIES

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The species of the genus *Bembix* Fabricius, 1775 from Russia and neighbouring territories are reviewed. The new synonymy is proposed: Bembix eburnea Radoszkowski, 1877 = B. weberi Handlirsch, 1893, syn. n., = B. subeburnea Tsuneki, 1971, syn. n., = B. weberi lama Tsuneki, 1971, syn. n.; Bembix integra Panzer, 1801 = B. dubia Gussakovskij, 1933, **syn. n.**, = B. iliensis Kazenas, 1978, = B. iliensis Kazenas, 1980, syn. n.; Bembix lutescens Radoszkowski, 1877 = B. gracilis Handlirsch, 1893, syn. n.; Bembix niponica F. Smith, 1873 = B. picticollis F. Morawitz, 1889, syn. n.; Bembix oculata Panzer, 1801 = B. oculata mongolica Tsuneki, 1971, syn. n., = B. oculata gegen Tsuneki, 1971, syn. n.; Bembix planifrons F. Morawitz, 1891 = B. parvula F. Morawitz, 1897, syn. n.; Bembix portchinskii Radoszkowski, 1884 = B. kirgisica F. Morawitz, 1891, syn. n., = B. trimaculata Kazenas, 1978, syn. n., = B. trimaculata Kazenas, 1980, syn. n.; Bembix transcaspica Radoszkowski, 1893 = B. kazakhstanica Kazenas, 1978, syn. n., = B. kazakhstanica Kazenas, 1980, syn. n.; Bembix turca Dahlbom, 1845 = B. melanura F. Morawitz, 1889, **syn. n.**, = B. gobiensis Tsuneki, 1971, **syn. n.**, = B. atra Kazenas, 1978, **syn.** \mathbf{n}_{\bullet} , = B. atra Kazenas, 1980, syn. \mathbf{n}_{\bullet} The lectotypes are designated for B. dubia Gussakovskij, 1933, B. picticollis F. Morawitz, 1889, B. planifrons F. Morawitz, 1891, B. kirgisica F. Morawitz, 1891. Bembix eburnea Radoszkowski, 1877 is newly

recorded from Russia; *B. dilatata* Radoszkowski, 1877 and *B. transcaspica* Radoszkowski, 1893 are newly recorded from China. The distribution of some species is enlarged. A key to 19 species from Russia and adjacent territories is given.

KEY WORDS: digger wasps, Crabronidae, Bembix, fauna, taxonomy, Russia.

П. Г. Немков. Роющие осы рода *Bembix* Fabricius, 1775 (Hymenoptera, Crabronidae, Bembicinae) России и сопредельных территорий // Дальневосточный энтомолог. 2016. N 313. C. 1-34.

Дается обзор видов рода *Bembix* Fabricius, 1775 фауны России и сопредельных территорий. Установлена новая синонимия: Bembix eburnea Radoszkowski, 1877 = B. weberi Handlirsch, 1893, syn. n., = B. subeburnea Tsuneki, 1971, syn. \mathbf{n}_{\bullet} , = B. weberi lama Tsuneki, 1971, syn. \mathbf{n}_{\bullet} ; Bembix integra Panzer, 1801 = B. dubia Gussakovskij, 1933, syn. n., = B. iliensis Kazenas, 1978, = B. iliensis Kazenas, 1980, syn. n.; Bembix lutescens Radoszkowski, 1877 = B. gracilis Handlirsch, 1893, syn. n.; Bembix niponica F. Smith, 1873 = B. picticollis F. Morawitz, 1889, syn. n.; Bembix oculata Panzer, 1801 = B. oculata mongolica Tsuneki, 1971, syn. n., = B. oculata gegen Tsuneki, 1971, syn. n.; Bembix planifrons F. Morawitz, 1891 = B. parvula F. Morawitz, 1897, syn. n.; Bembix portchinskii Radoszkowski, 1884 = B. kirgisica F. Morawitz, 1891, syn. n., = B. trimaculata Kazenas, 1978, syn. n., = B. trimaculata Kazenas, 1980, syn. n.; Bembix transcaspica Radoszkowski, 1893 = B. kazakhstanica Kazenas, 1978, syn. \mathbf{n}_{\bullet} , = B. kazakhstanica Kazenas, 1980, syn. \mathbf{n}_{\bullet} ; Bembix turca Dahlbom, 1845 = B. melanura F. Morawitz, 1889, syn. n., = B. gobiensis Tsuneki, 1971, syn. n., = B. atra Kazenas, 1978, syn. n., = B. atra Kazenas, 1980, syn. n. Обозначены лектотипы для четырех видов: В. dubia Gussakovskij, 1933, В. picticollis F. Morawitz, 1889, B. planifrons F. Morawitz, 1891, B. kirgisica F. Morawitz, 1891. Дополнено распространение некоторых видов. Приводится определительная таблица 19 видов фауны России и сопредельных территорий.

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INTRODUCTION

This paper deals with *Bembix* of Russia and the adjacent territories (the former USSR, Mongolia, northern China, Korean Peninsula, and northern Japan) and includes 19 species registered here at present. These wasps have never been revised. Within the area considered, there are keys to the species of European part of former USSR (Pulawski, 1978), Kazakhstan and Middle Asia (Kazenas, 1978), China (Wu & Zhou, 1987), and Russian Far East (Nemkov *et al.*, 1995).

MATERIAL AND METHOD

This paper is based on the material from collections of the Zoological Institute of RAS, St Petersburg, Russia [ZISP] and Institute of Biology and Soil Science of

FEB RAS, Vladivostok, Russia, as well as several specimens from Zoological Museum of Moscow State University, Moscow, Russia [ZMMU] and California Academy of Sciences, San Francisco, USA. Totally about 900 specimens were studied. The distribution of species is given according to Pulawski (2015) and update based on the studied material. New records are asterisked (*). Descriptive terminology follows Bohart and Menke (1976), but the terms "mesosoma" instead of "thorax" and "metasoma" instead of "gaster" are used.

RESULTS

Genus Bembix Fabricius, 1775

Bembix Fabricius, 1775: xxiii. Type species: Apis rostrata Linnaeus, 1758, designated by Latreille, 1810: 438.

Bembex Fabricius, 1777: 122. Emendation of Bembix Fabricius, 1775. Unavailable name.

COMPOSITION. *Bembix* is one of the largest genera of digger wasps, currently includes about 350 species in the world fauna. These wasps are distributed worldwide and especially abundant in the Palaearctic, Australian, and Afrotropical regions (Nemkov, 2013; Pulawski, 2015). The females construct nests with one to several cells in hard or more often in sandy soil. The larvae feed on different Diptera (Bohart & Menke, 1976; Evans & O'Neill, 2007; Nemkov, 2012).

Key to species from Russia and adjacent territories

1. Female: flagellum with 10 articles, metasoma with six visible terga
– Male: flagellum with 11 articles, metasoma with seven visible terga
2. Metasomal sterna 3–5 with large and distinct scattered punctures, interspaces
smooth and shiny, at least in posterior half of sternum
 Metasomal sterna 3–5 with small and dense regular punctures, without large
scattered ones, if mixed with large, sparse and indistinct punctures, then
interspaces with dense small punctures, semidull
3. Hind wing anal cell posteriorly distinctly longer than anteriorly. – Body with rich
pale yellow coloration, metasomal terga almost entirely pale colored. Body
length 14–17 mm
- Hind wing anal cell posteriorly about same length as anteriorly or shorter 4
4. Scape black. Inner eye orbit lacking yellow band or with small spot on upper
frons. Body length 14–18 mm
, .
- Scape ventrally yellow. Inner eye orbit with yellow wide band extending to
antennal socket
5. Clypeus basally evenly convex. Apical edge of metasomal tergum 5 without
strong prominent spines. Body length 14–17 mm
- Clypeus basally roof-shaped. Apical edge of metasomal tergum 5 with strong
prominent spines. Body length 17–23 mm
6. Anal cell of hind wing posteriorly distinctly longer than anteriorly
- Anal cell of hind wing posteriorly about same length or shorter than anteriorly 10

7. Pale band of metasomal terguin 3 twice interrupted, represented by one	
and two lateral spots. Metasomal sternum 2 medially with smooth imp	
longitudinal stripe. Clypeus with two black spots, basally strongly roof-	
Body length 17–24 mm	
mal sternum 2 without smooth impunctate longitudinal stripe	
8. Clypeus with two black spots, basally strongly roof-shaped, laterally slightly c	
Metasomal sternum 2 medially with large and distinctly scattered put	
interspaces smooth and shining. Body length 14–16 mm B. trans e	
- Clypeus without black spots, basally weakly roof-shaped, laterally	
Metasomal sternum 2 medially with dense small punctures mixed with	
sparse and indistinct punctures, semidull	
9. Mandible basally black. Body length 18–20 mm	
Mandible basally yellow. Body length 17–20 mm	
10. Clypeus evenly convex. Metasomal sternum 6 with large and distinct so	
punctures, interspaces with dense small punctures	
- Clypeus roof-shaped, at least basally. Metasomal sternum 6 without large	
red punctures	
11. Pronotal lobe black. Head, mesosoma, metasomal segment 1, and femo	
long and dense setae, longest setae not shorter than flagellomere 1 lengtl	h. Body
length 17–19 mm	
- Pronotal lobe yellow. Body and femora with shorter setae, setae distinctly	
than flagellomere 1 length	12
12. Pronotum before pronotal lobe black, sometimes with small yellow spot	
pleuron and propodeum black, without yellow spots. Metasomal tergum	
and densely punctured, interspaces less than puncture diameter. Body	
16–18 mm	
 Pronotum before pronotal lobe yellow. Mesopleuron usually partly yellow 	
entirely black. Lateral surface of propodeum with yellow spot	
13. Metasomal tergum 6 finely and densely punctured, interspaces less than p	
diameter. Body length 14–19 mm	
- Metasomal tergum VI with larger and sparser punctures, interspaces about p	
diameter. Body length 14–19 mm	
14. Clypeus elongated, apical margin located far below at level of lower	
eye, medially with two small black spots sometimes combined in large	
Head, mesosoma, metasomal segment 1, and femora with long and dens	
longest ones not shorter than flagellomere 1 length. Body length 14–16 r	
- Clypeus shorter, apical margin located at level of lower edge of eye. Bo	
femora with shorter setae, longest ones distinctly shorter than flagello	
length	
15. Lower frons between antennal sockets roof-shaped. Sulcus between	
pleuron and lateral surface of propodeum below with deep fovea	

16.	Lower frons between antennal sockets slightly convex, not roof-shaped. Sulcus between metapleuron and lateral surface of propodeum below without deep fovea
	and almost reaching their posterior margin, dark space between pale band and posterior margin of tergum much less than band width. Body length 13–16 mm B. lutescens
_	Metasomal terga with somewhat narrow whitish band covered not more than one-third of their length and removed from their posterior margin, dark space between pale band and posterior margin of tergum not less than band width 17
17.	Mesopleuron yellow with small black spots. Body length 13–16 mm
_	Mesopleuron black with small pale yellow spots. Body length 12–15 mm
18	Clypeus yellow. Setae on vertex not longer than maximal scape width. Lower
10.	half of mesopleuron with dense micropunctures only, without larger punctures
	Body length 10–15 mm
_	Clypeus with black spot. Setae on vertex distinctly longer than maximal scape
	width. Lower half of mesopleuron with dense micropunctures mixed with rare
19	small punctures
17.	apex. Black spot on clypeus rectangular, with parallel lateral borders. Meso-
	scutum without U-shaped yellow spot. Mesopleuron mostly black. Body length
	14–18 mm
- I	nner edge of mandible without widening between preapical tooth and apex. Black spot on clypeus triangular or narrowly trapezoidal, with upwardly converging
	lateral borders. Mesoscutum with U-shaped yellow spot. Mesopleuron mostly
	yellow. Body length 13–15 mm
20.	Protarsomeres 2-4 flattened, strongly triangularly dilated apically, shorter than
	its apical width
_	its apical width
21.	Metasomal terga black, without light band, sometimes terga II–IV medially with
	indistinct short remnant of light band. Metasomal sternum VI with semicircular
	prominent platform. Body length 17–19 mm
_	Metasomal terga I–VII with well developed light band. Metasomal sternum VI
22	with triangular prominent platform
22.	apically bristle. Mesopleuron and propodeum black. – Metasomal sternum 7
	apically narrow, its width much less than length of metatarsomeres 3. Body
	length 16–18 mm
_	Protarsomeres 2–4 apically on inner side with short, pale, not curved apically
	bristle. Mesopleuron and propodeum usually with yellow spots

- I	Metasomal sternum 7 narrow, apically without notch, width of sternum much less than length of metatarsomere 3. Body length 14–19 mm
:	Metasomal sterna 3–5 with large and distinct scattered punctures, interspaces smooth and shiny, at least in posterior half of sternum
]	Metasomal sterna 3–5 with small and dense regular punctures, if mixed with large, sparse and indistinct large punctures, then interspaces with dense small punctures, semidull
1	Anal cell of hind wing posteriorly distinctly longer than anteriorly. Metasomal tergum 7 with lateobasal tooth. Metasomal sternum 2 medially with smooth longitudinal line, without strong carina. – Body with rich pale yellow coloration metasomal terga almost entirely pale colored. Body length 15–17 mm
	Anal cell of hind wing posteriorly about same length as anteriorly or shorter. Metasomal tergum 7 without laterobasal tooth. Metasomal sternum 2 medially with strong longitudinal carina
26.	Clypeus basally roof-shaped. Metasomal sternum 6 without prominent elevation Metasomal sternum 7 with one strong broad longitudinal carina. Body length 17–23 mm
;	Clypeus basally evenly convex. Metasomal sternum 6 with prominent narrowly semielliptical elevation. Metasomal sternum 7 with three thin longitudinal carinae
;	Scape black or with small yellow spot. Inner eye orbit lacking yellow band or with small spot on upper frons. Apex of prominent elevation of metasomal sternum 6 without emargination. Body length 15–18 mm
;	antennal socket. Apex of prominent elevation of metasomal sternum 6 with small emargination, Body length 15–18 mm
- A	Anal cell of hind wing posteriorly distinctly longer than anteriorly
;	Pale band of metasomal tergum 5 twice interrupted, represented by one medial and two lateral sports. Metasomal tergum 7 with laterobasal tooth. Metasomal sternum 2 medially without longitudinal carina. Body length 17–24 mm
1	Pale band of metasomal tergum 5 not or narrowly interrupted medially. Metasomal tergum 7 without laterobasal tooth. Metasomal sternum 2 medially with strong longitudinal carina
30.	Clypeus basally roof-shaped. Metasomal sternum 2 medially with longitudinal carina, more than half of sternum length. Body with rich pale yellow coloration, metasomal terga almost entirely pale colored. Body length 14–16 mm
	B. transcaspica

_	carina no more than one-third of sternum length. Body usually with weak pale	
	coloration	
	. Longitudinal carina of metasomal sternum 7 apically bifurcated. Body length 18–22 mm	
-	Longitudinal carina of metasomal sternum 7 apically not bifurcated. Body length 17–20 mm	
32	. Mesotibia without spur. Mesotarsomere 1 on inner side with strong bristle near	
	middle and distinct emargination between bristle and apex of tarsomere 1 33	
_	Mesotibia with spur. Mesotarsomere 1 on inner side without strong bristle and	
	emargination between bristle and apex of tarsomere 1	
33	. Clypeus with black spot. Mesoscutum black. Metasomal terga with narrow	
	whitish band widely interrupted medially. Body length 14–18 mm	
	B. megerlei	
_	Clypeus yellow. Mesoscutum medially with U-shaped yellow spot or two	
	longitudinal yellow strips. Metasomal terga with broad pale yellow band not	
	interrupted medially. Body length 13–15 mm	
34	. Clypeus elongated, apical margin located far below at level of lower edge of	
	eye, Head, mesosoma, metasomal segment 1, and femora with long dense setae,	
	longest ones not shorter than flagellomere 1 length. Prominent elevation of	
	metasomal sternum 6 almost rectangular, with weakly curved posterior margin.	
	Body length 14–16 mm	
_	Clypeus shorter, apical margin located at level of lower edge of eye. Body and	
	femora with shorter setae, longest ones shorter than flagellomere 1 length. Prominent	
	elevation of metasomal sternum 6 semicircular or narrowly semielliptical, with	
	strongly curved posterior margin	
35	. Lower frons between antennal sockets slightly convex, not roof-shaped. Lower	
	half of mesopleuron with dense micropunctures only, not mixed with larger	
	punctures. Prominent elevation of metasomal sternum 6 wide, elevation width	
	more than metatarsomeres 3 length. Body length 10–15 mm	
_	Lower frons between antennal sockets roof-shaped. Lower half of mesopleuron with	
	dense micropunctures mixed with rare small punctures. Prominent elevation of	
	metasomal sternum 6 narrow, elevation width less than metatarsomere 3 lendth 36	
36	. Metasomal terga with broad whitish band occupied at least half of their length	
	and almost reaching their posterior margin, dark space between pale band and	
	posterior margin of tergum much less than band width. Body length 13–16 mm	
_	Metasomal terga with narrow whitish band occupied no more than one-third of	
	their length, dark space between pale band and posterior margin of tergum no	
	less than band width	
37	. Mesopleuron yellow with small black spots. Body length 13–16 mm long	
- /	B. eburnea	
_	Mesopleuron black with small pale yellow spots. Body length 12–15 mm	
	B. cinctella	
	20000000	

List of the species

Bembix bicolor Radoszkowski, 1877

Bembex (!) *bicolor* Radoszkowski, 1877: 47, ♀, ♂ (syntypes – ♀♂; Uzbekistan, Samarkand; Tajikistan, Varzaminor; Kyrgyzstan, Shakhimardan; [ZMMU]); Kohl & Handlirsch, 1889: 281; Handlirsch, 1893: 747; de Dalla Torre, 1897: 502; Gussakovskij, 1934: 13; Gussakovskij, 1935: 444; Islamov, 1970: 63.

Bembex (!) *femoralis* Radoszkowski, 1877: 48, ♀, ♂ (syntypes – ♀♂, Kazakhstan, Kyzyl-Kum, no specific locality, [ZMMU]), synonymized by Handlirsch, 1893: 747; Kohl & Handlirsch, 1889: 281.

Bembex (!) *barbiventris* F. Morawitz, 1889: 142, ♂ (syntypes – ♂♂, Mongolia, "Gaotai" [North China, Gansu], [ZISP]), synonymized by Handlirsch, 1893: 747; F. Morawitz, 1893b: 423.

Bembix bicolor: Tsuneki, 1971a: 207; Kazenas, 1972: 141; Myartseva, 1972: 90; Kazenas, 1974: 109, 110; Bohart & Menke, 1976: 545; Kazenas, 1978: 86, 89; Pulawski, 1978: 208, 209; Baratov & Nazarova, 1980: 75; Nazarova & Baratov, 1981: 98; Kazenas, 1992: 28; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Kazenas, 2001: 49, 50, 238, 2002: 130; Nazarova, 2004: 108, 2005: 94; Kazenas, 2008: 255; Prisniy, 2012: 51; Kazenas, 2013: 498.

MATERIAL. Kazakhstan: Kyzylordinskaya Oblast, Balamurun, 24, 25.V 1913, 1♀, 1♂ (Kozhanchikov). **Uzbekistan:** Karayantak, 13, 16.V 1915, 2♂; 30 km S Samarkand, Amankutan tract, 4.VII 1932, 1♀ (Gussakovskij). **Turkmenistan:** Kopetdag ridge, 29-30.IV 1888, 1♂ (Semenov); Krasnovodsk, 1♂ (coll. F. Morawitz); ibid., 29.VI 1901, 1♀ (Anger); ibid., 22.VI 1925, 1♀ (Gussakovskij); ibid., 3.VI 1927, 1♂ (coll. Ushinski); Uch-Adzhi, 1-3.V 1929, 1♀ (Shestakov); Kara-Kala, 2.VI 1952, 1& (Steinberg); Bolshoi Balhan ridge, Shahi-Burun, 16.VI 1934, 1♀ (Popov); Jebel, 29.VI 1934, 1♀ (Popov); Akhcha-Kuima, 2.VI 1953, 1♀(Steinberg); North Karakum, Shasenem, 5-6.VI 1953, 1♀ (Ahrens); Bolshoi Balhan ridge, Aidin, 4.VI 1953, 1♀ (Odintsova); Kopetdag ridge, 12 km SW Serdar, 24.V 1953, 5♀, 1♂ (Odintsova, Steinberg); West Kopetdag ridge, 12 km S Iskander, 14.VI 1953, 1 \circlearrowleft (Odintsova); ibid., Syunt mountain, 21, 23.VI, 9.VII 1953, 4\(\times\), 3 \circlearrowleft (Odintsova, Ponomareva, Ahrens); ibid., Iol-Dere, 29.VI 1953, 12 (Ahrens). Tajikistan: Yagnob river, Ausol, 18.VII 1892, 13 (Glazunov); Zarafshan river, Darch, 11.VIII 1892, 1♀ (Glazunov); Shurab, 20.V 1915, 1♀ (Shestakov); southern slope of Hissar ridge, Dara-i-Hodzh, 31.VIII 1930, 1 (Kuznetsov); Ayvaj, Kafirnigan river mouth, 18.VI 1936, 1♀ (Gussakovskij); Khorog, Shahdara river mouth, 1936, 1♀ (Bregetova); 35 km N Dushanbe, Kwak tract, 21.VII 1937, 1♂ (Gussakovskij); near Dushanbe, Kondara gorge, Varzob river mouth, 9.VIII 1937, 16.VII 1938, 15.VI 1939, 1, 2 (Gussakovskij); Dushanbe, botanical garden, 20.V, 8.VI 1944, 3♀ (Popov). **Mongolia:** Umnugovi Aimag, 60 km WNW of Baya-Dalai,

Khongoryn-els, 30-31.VII 1967, 1♂ (Emelyanov); ibid., 60 km E of Talyn-Bilgeh-Bulak spring, 17-19.VIII 1969, 2♀ (Kozlov). **China:** Inner Mongolia, Alashan, Dyn-Yuan-In, 10-18.VI 1908, 8♀, 4♂ (Kozlov); ibid., Gobi, Ikhengun, 24.VI 1909, 8♂ (Kozlov).

DISTRIBUTION. Italy, Greece, Bulgaria, Cyprus, Turkey, Israel, Oman, Russia (Belgorodskaya Oblast), Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iraq, Iran, Afghanistan, Mongolia, China (Qinghai, Gansu, Inner Mongolia).

Bembix bidentata Vander Linden, 1829

Bembex (!) bidentata Vander Linden, 1829:13, ♂, also tentatively ♀ (holotype – ♂, southern France, no specific locality, [Bruxelles]); Handlirsch, 1893: 773; de Dalla Torre, 1897: 502.

Bembix bidentata: Parker, 1929:182; Romanova, 1969: 134; Bohart & Menke, 1976: 545; Kazenas, 1978: 89; Pulawski, 1978: 208, 209; Minoranskiy & Shkuratov, 1996: 81; Shkuratov, 2000: 57; Kazenas, 2001: 50, 239, 2002: 130; Protsenko, 2003: 68, 69; Gorobchishin & Protsenko, 2004: 39; Kazenas, 2004a: 35; Shkuratov, 2004a: 75, 2004b: 166; Evans & O'Neill, 2007: 173; Baghirov, 2010: 678; Shorenko & Konovalov, 2010: 14; Baghirov, 2011: 141; Prisniy, 2012: 51; Protsenko et al., 2014: 27.

MATERIAL. **Russia:** Volgogradskaya Oblast, Volgograd, 1♀ (coll. F. Morawitz); ibid., 20.VI 1906, 1♂ (Wollman); Dagestan, Alexandro-Nevskoe, 1.VII, 3, 5.VIII 1927, 23.VIII 1928, 3♀, 2♂ (Olsufiev, Popov); Astrakhanskaya Oblast, Verkhnyaya Chekannaya, 9.VI 1911, 1♂ (Lukasz). **Austria:** "Austria", 1867, 1♂ (Erber). **Ukraine:** Luganskaya Oblast, Lugansk, 27.VI 1921, 1♂; Khersonskaya Oblast, Tsyurupinsk, 14.VII, 22.VI 1914, 1♀, 3♂ (Fedorov). **Abkhazia:** Gagra, 26.VI 1909, 2♂ (Zhuravsky). **Azerbaijan:** Agdere, 1♀ (coll. F. Morawitz); Kudula, 29.VI 1928, 1♂ (Bocharnikov). **Kazakhstan:** Zapadno-Kazakhstanskaya Oblast, Uralsk, 29-30.VII 1926, 1♂ (Shestakov); ibid., Yanvartzevo, 8-31.VII 1949, 4♀, 6♂ (Rudolf, Popov); ibid., Mergenevo, Ural river, 10.VI 1951, 1♀ (Steinberg); ibid., Kharkin, 4.VII 1951, 1♂ (Romadina). **Iran:** Tabriz, 2.VI 1914, 1♂ (Andrievsky).

DISTRIBUTION. France, Portugal, Spain, Italy (including Sicily and Sardinia), Austria, Croatia, Albania, Macedonia, Greece (including Crete and Rhodes), Slovakia, Hungary, Romania, Bulgaria, Ukraine, Turkey, Russia (Crimea, Belgorodskaya Oblast, Volgogradskaya Oblast, Rostovskaya Oblast, Dagestan, *Astrakhanskaya Oblast, Altai), *Abkhazia, *Azerbaijan, Kazakhstan, Iran.

Bembix cinctella Handlirsch, 1893

Bembix cinctella: Bohart & Menke, 1976: 545; Shorenko, 2003: 97; Shorenko, 2005b: 98; Ivanov, Fateryga & Filatov, 2009: 42; Protsenko, Fateryga & Ivanov, 2014: 27.

MATERIAL. **Russia:** Crimea, Enisharskaya bay, 13-26.VIII 1916, 1♀ (Wuczeticz); ibid., Otuzskaya valley, 26.VII-9.VII 1922, 1♂ (Wuczeticz). **Greece:** Corfu,

1867, 2♀, 7♂ (Erber). **Turkey:** Chiftlik, 10-20.VII 1928, 1♂ (Wagner); Konya, Tuz lake, 4.VII 1962, 1♂ (Soika).

DISTRIBUTION. Albania, Greece (including Crete and Rhodes), Turkey, Jordan, Russia (Crimea).

Bembix dilatata Radoszkowski, 1877

Bembex (!) dilatata Radoszkowski, 1877: 47, ♂ (syntypes – ♂♂, Uzbekistan, Tashkent and Karakazyk, [ZMMU]); Handlirsch, 1893: 714; F. Morawitz, 1893b: 423; de Dalla Torre, 1897: 504; F. Morawitz, 1897: 152.

Bembix dilatata: Bohart & Menke, 1976: 546; Kazenas, 1978: 86, 89; Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 99; Kazenas, 1992: 28; Nazarova, 1998: 42; Kazenas, 2001: 50, 2002: 130, 2004a: 111, 2013: 498.

MATERIAL. **Kyrgyzstan:** Irkeshtam, 16.VII 1935, $2 \circlearrowleft$ (Olsufiev); Moldotau ridge, 20.VIII 1972, $1 \circlearrowleft$ (Tarbinski). **Tajikistan:** Yagnob river, $1 \Lsh$, $1 \circlearrowleft$ (coll. F. Morawitz); ibid., 1892, $1 \Lsh$, $2 \circlearrowleft$ (Glazunov); Zarafshan river, Zahmat-Abad, 1892, $1 \Lsh$ (Glazunov); 40 km N Dushanbe, Ruidasht tract, 4.IX 1937, $1 \Lsh$ (Gussakovskij); southern slope of Hissar ridge, Khodzha-Obi-Garm, 2.IX 1946, $1 \backsim$ (Popov); near Dushanbe, Kok-Kul tract, Lyuchob river, 20-22.VIII 1940, $1 \circlearrowleft$ (Gussakovskij). **China:** Xinjiang, Kyzyl-Su river valley, 22.VII 1935, $1 \backsim$ (Olsufiev); ibid., Sulu-Sakal river valley, 24.VII 1935, $1 \backsim$ (Olsufiev).

DISTRIBUTION. Kazakhstan, *Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, *China (Xinjiang).

Bembix diversipes F. Morawitz, 1889

Bembex (!) *diversipes* F. Morawitz, 1889: 138, ♂ (holotype – ♂, "Kansu, Nanpin"[China, Gansu] [ZISP], examined); Handlirsch, 1893: 711; F. Morawitz, 1893b: 423; de Dalla Torre, 1897: 504; Tsuneki, 1971a: 208, 1971b: 8.

Bembix diversipes: Bohart & Menke, 1976: 546; Kazenas, 1978: 89; Nemkov, 1986: 108, 1990: 83; Nemkov et al., 1995: 466; Kazenas, 2001: 50, 2002: 131; Hua, 2006: 277; Nemkov, 2008: 25, 2009: 142; Akulov & Proshchalykin, 2013: 117.

Bembix pallida: Baghirov, 2010: 678, 2011: 141.

MATERIAL. Holotype of *Bembix diversipes* F. Morawitz, 1889 − ♂, China, "Kansu, Nan-pin" (coll. F. Morawitz). **Russia:** Altai, 1♀ (coll. F. Morawitz); ibid., Ongudai, 1♂ (Steinfeld); ibid., Katun river, Uznezya, 16.VIII 1909, 1♀ (Gorchakovski); ibid., 20 km WSW of Aktash, Chuya river, 10.VIII 1987, 1♀, 1♂ (Pesenko); ibid., 15 km ESE of Ongudai, Khabarovka river, 12.VIII 1987, 1♀ (Pesenko); ibid., Ongudai, 8-10, 21.VII 1998, 1♀, 1♂ (Berezovsky); Krasnoyarskii Krai, Krasnoyarsk, 1♀ (coll. F. Morawitz); Irkutskaya Oblast, 15 km E Ust-Orda, Ordinsk, 2.VIII 1994-22.VII 2008, 12♀, 12♂ (Nemkov); Buryatiya, Naushki, 26.VII 1924, 1♂ (Mikhno); ibid., Gusinoe lake, 2.VIII 1927, 1♂ (Mikhno); ibid., Kyakhta, 28.VII 1977, 1♂ (Kupyanskaya); Primorskii Krai, Vinogradovka, 7.VIII 1929, 1♀ (Dyakonov, Philipiev); ibid., Kamen-Rybolov, 11.IX 1945, 1♀ (Onisimova). **Kazakhstan:**

Vostochno-Kazakhstanskaya Oblast, Zaysan lake, 1♂ (coll. F. Morawitz); Karagandinskaya Oblast, near Jan-Ark, Koksengir, 8.VII 1959, 2♂ (Demyanova). **Mongolia:** Kentei ridge, upper reaches of Khara-Gol river, Sugu-Nur stream, 31.VII-2.VIII 1924, 1♂ (Kozlov); Uvurhangai aimag, 20 km S Hovd, Arts-Bogdo ridge, 12.VIII 1967, 1♀ (Emelyanov, Kerzner).

DISTRIBUTION. Turkey, Russia (Altai, Krasnoyarskii Krai, Irkutskaya Oblast, Buryatiya, *Primorskii Krai), Kazakhstan, Kyrgyzstan, Uzbekistan, Iran, Mongolia, China (Inner Mongolia, Gansu).

REMARKS. The material from Altai, identified by Bagirov (2010, 2011) as *B. pallida*, really belongs to *B. diversipes*.

Bembix eburnea Radoszkowski, 1877

Bembex (!) *eburnea* Radoszkowski, 1877: 49, ♂ (holotype – ♂, Uzbekistan, Samarkand, [ZMMU]); Handlirsch, 1893: 722; Radoszkowski, 1893: 66; de Dalla Torre, 1897: Gussakovskii, 1933: 293, 1935: 444.

Bembex (!) weberi Handlirsch, 1893: 723, \subsetneq , \circlearrowleft (syntypes $- \subsetneq \circlearrowleft$, North China, no specific locality, [depository not indicated, probably Münster]; de Dalla Torre, 1897: 515; syn. n.

Bembix subeburnea Tsuneki, 1971a: 214, ♀, ♂ (holotype – ♂, Mongolia, Hovd Aymag, Somon Bulgan, [Budapest]); Bohart & Menke, 1976: 548; **syn. n.**

Bembix weberi lama Tsuneki, 1971a: 216, ♂ (holotype – ♂, Mongolia, South Gobi Aymag, "Takhilga ul", [Budapest]); Bohart & Menke, 1976: 549; syn. n.

Bembix weberi: Yasumatsu, 1942: 110; Tsuneki, 1969: 5; Tsuneki, 1971b: 7; Bohart & Menke, 1976: 549; Wu & Zhou, 1996: 155; Hua, 2006: 277; Evans & O'Neill, 2007: 178.

Bembix eburnea: Tsuneki, 1971b: 7; Bohart & Menke, 1976: 546; Kazenas, 1978: 90; Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 99; Nazarova, 1998: 42; Kazenas, 2001: 50, 2002: 131, 2004: 35; Yildirim & Ljubomirov, 2005: 1790 (description of ♀); Kazenas, 2013: 498.

MATERIAL. Russia: Crimea, Sevastopol, 19.VI 1912, 1♀ (Pliginski); ibid., Koktebel, 17.VIII 1924, 1♀ (Wuczeticz); Volgogradskaya Oblast, Volgograd, 1866-1872, 3♀, 1♂ (Bekker); ibid., 17, 20.VI 1906, 2♀ (Wollman). **Kazakhstan:** Aktyubinskaya Oblast, Malye Barsuki, 28.VI 1910, 2d (Androssov); Kyzylordinskaya Oblast, Baigakum, 10.VI 1907, 1 (Wollman); ibid., Kyzylorda, 16.VI 1908, 1♂ (Wollman); ibid., Tastubek, 20.VI 1933, 1♂; Akmolinskaya Oblast, Kuropatkino, 29.VII 1930, 1♂ (Gussakovskij). **Uzbekistan:** Khiva, 24.VI-1.VII 1927, 2♀, 2♂ (Gussakovskij); near Khatyrchi, Yargak, 11-15.VI 1928, 19.VI 1929, 4♀, 2♂ (Zimin, Gussakovskij); Sariasia, 1.VI 1928, 1 (Kuznetsova); near Vabkent, Makhallya-Gedzha, 21.V 1932, 1♀ (Kuznetsova); Juma, 11.VI 1937, 1♂ (Popov). **Turkmenistan:** Krasnovodsk, 2♀ (coll. F. Morawitz); Ashgabat, 27.VI 1924, 1♂ (coll. Ushinski); Kushka, 13-18.VI 1925, 2♂ (Gussakovskij); Komarovskii, 22, 25.VI 1928, 1♀, 1♂ (Gussakovskij); Firuza, 28.VI 1928, 1♂ (Semenov); Farab, 12-28.V 1929, 1♀ (Gussakovskij); 40 km N Serdar, Kara-Bogaz, 19.V 1952, 1♀ (Steinberg); Kara-Kala, 14.VI 1952, 3.VII 1955, 2♂ (Ponomareva, Kryzhanovsky); 100 km NE Serdar, Kirpili, 15.V 1953, 2♀ (Ahrens). **Tajikistan:** southern slope of

Hissar ridge, Gushari, 28.VII 1930, 1♀ (Kuznetsova); near Kulyab, 1.VIII 1933, 1♂ (Popov); Vakhsh river, Staraya Pristan, 9.IX 1948, 1♂ (Popov). **Iran:** Ungyut-Mugan, 17, 20.III 1927, 1♀, 1♂ (Bocharnikov); Kuru-Chai, 20.VIII 1927, 2♀, 1♂ (Dovnar-Zapolsky). **Mongolia:** Gobi-Altai Aimag, Adzh-Bogdo ridge, 10 km SSE Ikh-Obo-Ula mountain, 18.VII 1970, 1♀ (Narchuk). **China:** Xinjiang, Gashun Gobi, Sajou, 4, 5.VIII 1895, 2♀ (Roborovsky, Kozlov); Tianjin, 1♂ (Weber).

DISTRIBUTION. Turkey, *Russia (Crimea, Volgogradskaya Oblast), Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Afghanistan, Mongolia, China (*Xinjiang, Inner Mongolia, Hebei, Beijing, Tianjin).

REMARKS. The specimen in ZISP with the labels "Weber Tientsin." and "Bembex Weberi & Handl. Typ." is the probable syntype of *B. weberi*. The study of this male as well as two females from Xinjiang with the labels "Bembex Weberi Handl. det. Kohl & revealed no significant differences between *B. weberi* and *B. eburnea*. A comparison of the examined material with original descriptions and figures (Tsuneki, 1971a) of *B. subeburnea* and *B. weberi lama* showed that the diagnostic features of these taxa are within the variability of *B. eburnea*. Therefore I regard the *B. weberi* Handlirsch, *B. subeburnea* Tsuneki, and *B. weberi lama* Tsuneki as a junior subjective synonyms of *B. eburnea* Radoszkowski.

Bembix integra Panzer, 1801

Bembex (!) integra Panzer, 1801: 21, ♂ (holotype [or syntypes] – ♂, Germany, no specific locality, [depository not indicated]); Handlirsch, 1893: 701, 1895: 1002; de Dalla Torre, 1897: 506; Müller, 1930: 181.

Bembex (!) dubia Gussakovskij, 1933: 293, \bigcirc , \bigcirc (lectotype, designated here $-\bigcirc$, Iran, Kerman, Enaric, [ZISP], examined); **syn. n.**

Bembix iliensis Kazenas, 1978: 86, \subsetneq (lectotype, designated by Kazenas, 1980a – \subsetneq , Kazakhstan, Alma-Atinskaya Oblast, Kegen river valley, [ZISP], examined); Kazenas, 2001: 50 (as tentative synonym of *Bembix diversipes*); **syn. n.**

Bembix iliensis Kazenas, 1980a: 141, \subsetneq , junior objective synonym and primary homonym of Bembix iliensis Kazenas, 1978 (holotype – \subsetneq , Kazakhstan, Alma-Atinskaya Oblast, Kegen river valley, [ZISP], examined); **syn. n.**

Bembix integra: Parker, 1929:103; Kazenas, 1978: 87, 89; Pulawski, 1978: 208, 209; Protsenko, Fateryga & Ivanov, 2014: 27.

Bembix dubia: Bohart & Menke, 1976: 546; Kazenas, 2001: 50.

MATERIAL. Lectotype of *Bembix dubia* Gussakovskij, 1933 – ♂, Iran, Kerman, Enaric, 19.VIII 1898 (Zarudny); paralectotypes – ♀, with the same label; ♂, Russia, Dagestan, Akhty (coll. F. Morawitz). Lectotype of *B. iliensis* Kazenas, 1978 and holotype of *B. iliensis* Kazenas, 1980 – ♀, Kazakhstan, Alma-Atinskaya Oblast, Kegen river valley, 26.VIII 1961 (Kazenas). **Portugal:** Portu, 2♀. **Spain:** Sierra de Guadarrama mountains, 8.VIII 1911, 9.VIII 1913, 2♀ (Dusmet). **Hungary:** "Hungary centralis", 1♀ (coll. F. Morawitz). **Ukraine:** Kharkovskaya Oblast, Dar-Nadezhda, 1921, 1♀; Kirovogradskaya Oblast, Kirovograd, 15.VII 1902, 1♀. **Kazakhstan:** Pavlodarskaya Oblast, Fedorovka, 26.VIII 1928, 1♀ (Belizin); Karagandinskaya Oblast, Koksengir near Jana Arka, 22.VII 1959, 1♀ (Demyanova). **Turkmenistan:** West Kopetdag ridge, Syunt mountain, 9.VII 1953, 1♂ (Ahrens).

DISTRIBUTION. France, Portugal, Spain, Switzerland, Italy, Germany, Austria, Croatia, Serbia, Poland, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Ukraine, Russia (Crimea, Dagestan), Kazakhstan, Turkmenistan, Iran.

REMARKS. The study of the type specimens of *B. dubia* showed that they correspond to diagnostic criteria of *B. integra*. Kazenas (1980a), when designated the holotype of *B. iliensis* Kazenas, 1980, actually also designated the lectotype of *B. iliensis* Kazenas, 1978, according to article 74.6 of the Code (ICZN, 1999). Later Kazenas (2001) suggested the synonymy of *B. diversipes* F. Morawitz and *B. iliensis* Kazenas, but my study of the types of both species did not confirm this. The comparison of the lectotype of *B. iliensis* Kazenas and material on *B. integra* Panzer did not reveal the significant differences between them. Therefore I regard *B. dubia* Gussakovskij, *B. iliensis* Kazenas, 1978 and *B. iliensis* Kazenas, 1980 as a junior subjective synonyms of *B. integra* Panzer.

Bembix lutescens Radoszkowski, 1877

Bembex (!) lutescens Radoszkowski, 1877: 49, ♂ (holotype – ♂, Kyzyl-Kum [probably Uzbekistan], no specific locality, [ZMMU], examined); Handlirsch, 1893: 889; de Dalla Torre, 1897: 507.

Bembix gracilis: Kazenas, 1974: 109; Bohart & Menke, 1976: 546; Myartseva, 1972: 90; Kazenas, 1978: 87, 90; Pulawski, 1978: 208, 210; Nazarova, 1998: 42; Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 99; Nazarova & Shomirsaidov, 1997: 24; Shkuratov, 2000: 57; Kazenas, 2001: 50, 239, 2002: 131; Shorenko, 2003: 97; Gorobchishin & Protsenko, 2004: 39; Kazenas, 2004a: 111; Shkuratov, 2004a: 75, 2004b: 166; Nazarova, 2005: 94; Shorenko, 2005b: 98; Kazenas, 2008: 255; Shorenko & Konovalov, 2010: 14; Kazenas, 2013: 498; Protsenko, Fateryga & Ivanov, 2014: 27.

Bembix lutescens: Bohart & Menke, 1976: 547; Kazenas, 2001: 50, 2002: 131.

MATERIAL. Holotype of *Bembex lutescens* Radoszkowski, 1877 - 3, Kyzyl-Kum (Fedchenko). **Azerbaijan:** Arax river, Kurugai, 20.VIII 1924, 19 (Dovnar-Zapolsky). **Kazakhstan:** Kyzylordinskaya Oblast, Baigakum, 28.V 1913, 43 (Gutbier); ibid., 70 km N Aralsk, 25.VIII 1930, 19 (Gozhev). **Uzbekistan:** 13, Khiva, 15.VI 1927, 19 (Gussakovskij); 15 km N Bukhara, Baga-Abzal, 15. 17.V 1929, 19, 13 (Kuznetsova); near Khatyrchi, Yargak, 19.VI 1929, 19, 19, 19 (Gussakovskij). **Turkmenistan:** Imam-Baba, 12-14.V 1912, 19, 19, 19 (Kozhanchikov); Ashgabat, 19,

1953, 3♀, 1♂ (Ahrens); North Karakum, Shasenem, 1-5.VI 1953, 1♀, 10♂ (Ahrens); 40 km N Serdar, Kara-Bogaz, 18.V-27.VI 1953, 6♀, 6♂ (Kryzhanovsky, Odintsova, Steinberg); Kara-Kala, 20.VII 1953, 1♀ (Ponomareva). **Tajikistan:** Khodzha-Kala, 1♀ (coll. F. Morawitz); Vakhsh river, Jilikul, 10, 13.VI 1934, 1♀, 1♂ (Gussakovskij); near Kubadiyan, Koi-Pyaz-Tau mountain, 20.VI 1934, 1♀ (Gussakovskij); Pyanj river, Parkhar, 3.VII 1936, 1♀ (Gussakovskij); Dushanbe, botanical garden, 9.VII 1943, 24.IX 1946, 2♀ (Popov, Romadina); Vakhsh river, Staraya Pristan, 12.IX 1948, 1♀ (Popov); Kurgan-Tyube, 26, 30.VIII, 5.IX 1948, 3♀, 3♂ (Popov, Rudolf); Khodzha-Kala, 25.VI 1953, 1♀ (Odintsova).

DISTRIBUTION. Ukraine, Turkey, Russia (Crimea, Volgogradskaya Oblast, Rostovskaya Oblast), Azerbaijan, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Iran

REMARKS. The study of the holotype of *B. lutescens* Radoszkowski showed its complete identity with *B. gracilis* Handlirsch, therefore I regard *B. gracilis* as a junior subjective synonym of *B. lutescens*.

Bembix megerlei Dahlbom, 1845

Bembex (!) *megerlei* Dahlbom, 1845: 492, ♂ (holotype [or syntypes] – ♂, "Austria" [probably today's Hungary], no specific locality, [depository not indicated, probably Lund or Stockholm]); Handlirsch, 1893: 729; de Dalla Torre, 1897: 508; Gorobchishin, 1995: 19.

Bembex (!) sarafschani Radoszkowski, 1877: 48, \subsetneq , \circlearrowleft (syntypes $- \subsetneq \circlearrowleft$, Uzbekistan, Zarafshan river valley, no specific locality, [ZMMU]), synonymized by Handlirsch, 1893: 729.

Bembix megerlei: Parker, 1929:115; Bohart & Menke, 1976: 547; Kazenas, 1978: 87, 90; Pulawski, 1978: 209; Minoranskiy & Shkuratov, 1996: 81; Kazenas, 2001: 50, 239; Kazenas, 2002: 131; Shkuratov, 2002: 140, 2004a: 75, 2004b: 166; Shorenko, 2005b: 98; Gorobchishin, 2006: 142; Danilov & Tshernyshev, 2008: 42; Shorenko & Konovalov, 2010: 14; Baghirov, 2011: 141; Nemkov, 2012: 123; Prisniy, 2012: 51; Protsenko, Fateryga & Ivanov, 2014: 30.

MATERIAL. **Russia:** Crimea, Evpatoria, 1♀ (Yakovlev); Volgogradskaya Oblast, Volgograd, 18.VI 1906, 1♀ (Wollman). **Ukraine:** Kharkovskaya Oblast, Kuryazh, 1♂ (coll. F. Morawitz); ibid., 8, 9.VII 1884, 4♂ (Yaroshevski); Kirovogradskaya Oblast, Kirovograd, 12.VII 1902, 1♂; Poltavskaya Oblast, Yareski, 15.VII-5.VIII 1922, 3♀, 2♂ (Belgovsky); ibid., Triby tract, 27.VIII 1923, 2♀ (Belgovsky); ibid., Yareski, 24.VII 1930, 1♂ (Hildebrandt). **Turkey:** Chiftlik, 10-20.VII 1928, 1♂ (Wagner). **Kazakhstan:** Zapadno-Kazakhstanskaya Oblast, Yanvartzevo, 20.VI-1.VIII 1949, 2♀, 3♂ (Popov); Aktyubinskaya Oblast, Malye Barsuki, 1.VI, 2.VII 1909, 23.VI 1910, 2♀, 1♂ (Androssov).

DISTRIBUTION. Serbia, Slovakia, Hungary, Romania, Bulgaria, Ukraine, Turkey, Russia (Crimea, Belgorodskaya Oblast, *Volgogradskaya Oblast, Rostovskaya Oblast), Kazakhstan, Uzbekistan.

Bembix niponica F. Smith, 1873

Bembex (!) niponica F. Smith, 1873: 194, ♂ (syntypes – ♂♂, Japan, Honshu, Hyogo, [London]); Handlirsch, 1893: 889; de Dalla Torre, 1897: 509.

Bembex (!) picticollis F. Morawitz, 1889: 144, \subsetneq , \circlearrowleft (lectotype, designated here $- \subsetneq$, China, "Tibet, Chetschuen" [probably Sichuan], [ZISP], examined); Handlirsch, 1893: 767; de Dalla Torre, 1897: 511; **syn. n.**

Bembix miserabilis Parker, 1929: 108, \subsetneq , \circlearrowleft (holotype – \circlearrowleft , Japan, no specific locality, [Cornell]), synonymized by Tsuneki, 1965: 27.

Bembix picticollis: Parker, 1929: 114; Yasumatsu & Narisada, 1935: 72; Yasumatsu, 1940: 31, 1942:108.

Bembix niponica: Parker, 1929: 120; Tsuneki, 1965: 27; Bohart & Menke, 1976: 547; Kazenas, 1980c: 85, 2001: 50, 2002: 132; Terayama, 2006: 18; Evans & O'Neill, 2007: 174; Nemkov, 2008: 25; Kazenas, 2013: 498.

Bembix niponica picticollis: Tsuneki, 1965: 27, 1967: 2, 1971a: 207, 1971b: 8, 1974: 361; Bohart & Menke, 1976: 547; Kazenas, 1978b: 87, 89; Tsuneki, 1982: 11, 18; Tsuneki, 1991: 199; Nemkov et al., 1995: 466; Wu & Zhou, 1996: 15; Hua, 2006: 277; Nemkov, 2009: 142, 2012: 446; Akulov & Proshchalykin, 2013: 118.

MATERIAL. Lectotype of *Bembix picticollis* F. Morawitz, 1889 - 9, China, "Tibet Chetschen." (probably Sichuan) (coll. F. Morawitz); paralectotype – δ , China, "Tibet Chetschen" (Potanin). Russia: Krasnoyarskii Krai, Minusinsk, 1 (coll. F. Morawitz); Buryatiya, Gusinoe lake, 27.VII 2007, 3♀ (Lelej, Proshchalykin, Loktionov); ibid., Dzhizha, 27.VII 2007, 1♀ (Lelej, Proshchalykin, Loktionov); ibid., Naushki, 2, 3.VIII 1984, 30.VII 2007, 15♀ (Lelej, Proshchalykin, Loktionov); Amurskaya Oblast, Blagoveshchensk, 16VII 1982, 1♀ (Lelej); Primorskii Krai, Kamen-Rybolov, Hanka lake, 19.VII 1908, 1♀ (Chersky); ibid., Troitskoe, Hanka lake, 6.VII 1909, 1 (Chersky); ibid., Yakovlevka, 17.VII 1926, 1 (Dyakonov, Philipiev); ibid., Baranowskii, Sujfun river, 16.VIII 1947, 1 (Onisimova); ibid., Hasan, 7.VIII 1976, 1& (Kurzenko); ibid., Golubinyi Utes, 10.VII 1976, 7.IX 1982, 4♀, 3♂ (Lelej, Kurzenko); ibid., 15 km W Spassk-Dalny, 7.IX 1981, 1♀ (Lelej); ibid., Ryazanovka, 14-18.VII 1982, 7.IX 1982, 1♀ (Shalagina); ibid., Khasanskii Nature Reserve, Przewalski spit, 1.VII 2005, 1♀ (Sidorenko). Kazakhstan: Kyzylordinskaya Oblast, Baigakum, 9.VI 1907, 1d (Wollman); ibid., Chiili, 25.V 1910, 13 (Kuzmin). Uzbekistan: Kaunchi, 7.VI 1930, 13 (Gussakovskij). Turkmenistan: Kushka, 13-18.VI 1925, 1♂ (Gussakovskij). Mongolia: Uvs Aimag, 50 km E Ulangom, 10-11.VII 1968, 3 (Kozlov). **China:** "N. China", 6.VII 1914, 1(Vasilev); Qinghai, Nanshan mountains, Xining-Hae river, 28, 29.VII 1908, 2♀ (Kozlov); Inner Mongolia, Ordos plateau, 22.VIII 1884, 1♀ (Potanin); Sichuan, near Batan, 2-5.VI 1893, 1♀ (Potanin); ibid., Vasykou-Tsali, 15.VII 1895, 1♀ (Potanin); Liaoning, Mukden, 20.VII 1952, 1♀ (Rubtsov). **Japan:** Honshu, 1♂; ibid., Fukui, Tsuruga, 23.VIII 1960, 23.VII 1965, 1♀, 1♂ (Tsuneki); Kagoshima, Yaku Island, 21.VII 1928, 1♂.

DISTRIBUTION. Russia (*Krasnoyarskii Krai, Buryatiya, Amurskaya Oblast, Khabarovskii Krai, Primorskii Krai), Kazakhstan, *Uzbekistan, *Turkmenistan, Mongolia, China (Qinghai, Sichuan, Inner Mongolia, Heilongjiang, Liaoning, Beijing, Tianjin, Taiwan), Korean Peninsula, Japan (Honshu, Kyushu, Ryukyu).

REMARKS. *Bembix niponica picticollis* F. Morawitz considered as a continental subspecies of the eastern-palaearctic species *B. niponica* F. Smith, and differed from the nominotypical island subspecies *B. niponica niponica* (Japan and Taiwan) mainly by less developed bright body colouration. The study of the type specimens of *B. picticollis* from China showed that they not differ from specimens of *B. niponica* from Japan, therefore I regard *B. picticollis* F. Morawitz as a junior subjective synonym of *B. niponica* F. Smith.

Bembix oculata Panzer, 1801

Bembex (!) oculata Panzer, 1801: 22, ♀ (holotype [or syntypes] – ♀, Germany, no specific locality, [depository not indicated]); Eversmann, 1849: 397; Radoszkowski, 1877: 51; Yaroshevskiy, 1881: 124; F. Morawitz, 1891: 225; Handlirsch, 1893: 854; Radoszkowski, 1893: 65; de Dalla Torre, 1897: 509; Kokujev, 1902: 10; Gussakovskij, 1933: 296; Gussakovskij, 1934: 13; Gussakovskij, 1935: 444.

Bembix oculata mongolica Tsuneki, 1971a: 209, ♂ (holotype – ♂, Mongolia, Hovd Aymag, Somon Bulgan, [Budapest]); Bohart & Menke, 1976: 547; syn. n.

Bembix oculata gegen Tsuneki, 1971a: 210, \circlearrowleft , \circlearrowleft (holotype – \circlearrowleft , Mongolia, Bayanhongor Aymag: oasis Ehingol, [Budapest]); Bohart & Menke, 1976: 547; **syn. n.**

Bembix oculata: Parker, 1929: 106; Myartseva, 1963: 60, 1965: 91; Kazenas, 1972: 142; Myartseva, 1972: 90; Kazenas, 1974: 109, 111; Bohart & Menke, 1976: 547; Kazenas, 1978: 86, 88; Pulawski, 1978: 208, 209; Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 100; Islamov, 1986: 523; Nazarova & Gafarov, 1986: 71; Minoranskiy & Shkuratov, 1996: 81; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Kazenas, 2001: 50, 239, 2002: 132; Shorenko, 2003: 97; Gorobchishin & Protsenko, 2004: 39; Kazenas, 2004a: 111, 2004b: 35; Nazarova, 2004: 108; Shkuratov, 2004a: 75, 2004b: 166; Nazarova, 2005: 94; Shorenko, 2005a: 168, 2005b: 98; Evans & O'Neill, 2007: 175; Kazenas, 2008: 255; Baghirov, 2010: 678; Shorenko & Konovalov, 2010: 14; Baghirov, 2011: 141; Prisniy, 2012: 51; Kazenas, 2013: 498; Protsenko, Fateryga & Ivanov, 2014: 30.

MATERIAL. Russia: Crimea, Evpatoria, 14.VIII 1916, 1♀ (Pliginski); ibid., Sevastopol, 13.VI 1918, 1♂ (Pliginski);Dagestan, Derbent, 3.VII 1910, 1♂ (Satunin). **Azerbaijan:** Gumbashi, 1.VII 1910, 1♀, 1♂ (Satunin); Balaken, 2, 4.VIII 1928, 1♀, 1♂ (Bocharnikov). **Kazakhstan:** Aktyubinskaya Oblast, Bolsye Barsuki, 6.VII 1908, 1♀ (Androssov); Aktyubinskaya Oblast, Malye Barsuki, 30.VI, 1.VII 1910, 1♀, 1♂ (Androssov); Zapadno-Kazakhstanskaya Oblast, Kharkin, 21.VI-28.VII 1953, 4♂ (Popov, Rudolf). **Uzbekistan:** Khiva, 24.VI 1927, 1♂ (Gussakovskij); Kaunchi, 7.VI 1930, 1& (Gussakovskij); 15 km N Bukhara, Baga-Abzal, 16.VII 1930, 1♀ (Kuznetsova); 30 km S Samarkand, Amankutan tract, 5.VII 1932, 1♀ (Gussakovskij); Nazarkhan, 4.VIII 1946, 1♀ (Lutta). **Turkmenistan:** Krasnovodsk, 1 $\stackrel{?}{\circ}$ (coll. F. Morawitz); Khazar, 26.VII, $2\stackrel{?}{\circ}$, $4\stackrel{?}{\circ}$ (Varentsov); Ashgabat, 8.VII 1924, 1♀ (coll. Ushinski); Kushka, 14.VI 1925, 1♀ (Gussakovskij); Farab, 2.VIII 1925, 1♀ (Gussakovskij); Krasnovodsk, 21.VIII 1927, 1♀ (coll. Ushinski); ibid., 19.VII 1934, 1♀ (Popov); 16 km SW Serdar, Adzhi-Dere, 5.VII 1953, 2♀ (Odintsova); West Kopetdag ridge, Syunt mountain, 9.VII 1953, 2♀, 3♂ (Ahrens); Kara-Kala, 16.VI-15.VII 1953, 8.VII 1955, 4♀ (Ponomareva, Ahrens). **Tajikistan:** Jilikul,

25.V 1931, 1♂ (Fursov); near Kulyab, 20.VIII 1933, 1♀ (Popov); Garm, 5.VIII 1936, 1♀ (Gussakovskij); near Dushanbe, Kondara gorge, Varzob river mouth, 15.VII 1937, 16.VII 1938, 8.IX 1946, 1♀, 3♂ (Gussakovskij, Popov); Nizhnii Pyanj, Pyanj river, 17, 19.VII 1943, 2♂ (Shtakelberg); Vang, 15.IX 1943, 1♀ (Shtakelberg); near Khorog, 22, 25.IX 1943, 3♀ (Shtakelberg); Dushanbe, botanical garden, 13.IX 1943, 24.IX 1946, 1♀, 1♂ (Popov); Kurgan-Tyube, 13.VIII 1948, 1♂ (Popov). Iran: Kuusha-Lyarumba, 6-10.V 1901, 1♂ (Zarudny). Mongolia: Umnugovi Aimag, 15 km NE Onch-Hkairkhan-Ul mountain, 4.VIII 1967, 1♀ (Kerzner); Hovd Aimag, lower reaches of Bodankin-Gol river, 20 km SW Altai-Somon, 4.VIII 1968, 1♀ (Kozlov).

DISTRIBUTION. France, Portugal, Spain, Switzerland, Italy (including Sicily and Sardinia), Germany, Austria, Slovenia, Croatia, Serbia, Albania, Greece (including Crete and Rhodes), Hungary, Romania, Bulgaria, Malta, Cyprus, Ukraine, Turkey, Syria, Lebanon, Israel, Palestine, Jordan, Saudi Arabia, UAE, Oman, Russia (Crimea, Belgorodskaya Oblast, *Dagestan, Astrakhanskaya Oblast, Orenburgskaya Oblast, Altai), Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Afghanistan, Pakistan, Mongolia, China (Inner Mongolia), Western Sahara, Morocco, Algeria, Tunisia, Libya, Egypt, Sudan, Djibouti, Angola.

REMARKS. The study of extensive material on *B. oculata* (including specimens from Mongolia, a type locality of *B. oculata mongolica* Tsuneki and *B. oculata gegen* Tsuneki) revealed a significant variability of this species in body colouration, punctuation and pubescence. The diagnostic characters of *B. oculata mongolica* and *B. oculata gegen* listed by Tsuneki (1971a) are within the species variability of *B. oculata*. I believe that *B. oculata mongolica* Tsuneki and *B. oculata gegen* Tsuneki are junior subjective synonyms of *B. oculata* Panzer.

Bembix olivacea Fabricius, 1787

Bembex (!) *olivacea* Fabricius, 1787: 285, sex not indicated (lectotype − ♂, Tunisia, Porto Farina, [Copenhagen], designated by van der Vecht, 1961: 60); F. Morawitz, 1891: 225; Handlirsch, 1893: 894; Dalla Torre, 1897: 510.

Bembex (!) mediterranea Handlirsch, 1893: 807, \bigcirc , \bigcirc (syntypes – \bigcirc \bigcirc , many localities from France, Portugal, Spain, Italy, Greece, Hungary, Russia, [depository not indicated]), synonymized by de Beaumont, 1951: 272; W. Schulz, 1904: 94.

Bembix mediterranea: Myartseva, 1963: 60.

Bembix olivacea: Myartseva, 1965: 91, 1972: 90; Bohart & Menke, 1976: 548; Kazenas, 1978: 85, 88; Pulawski, 1978: 208, 209; Minoranskiy & Shkuratov, 1996: 81; Gorobchishin & Protsenko, 2004: 39; Shkuratov, 2000: 57; Kazenas, 2001:50, 239, 2002: 132, 2004b: 35; Shkuratov, 2004a: 75, 2004b: 166; Shorenko, 2005a: 168, 2005b: 98; Evans & O'Neill, 2007: 176; Shorenko & Konovalov, 2010: 14; Protsenko, Fateryga & Ivanov, 2014: 30.

MATERIAL. **Russia:** Crimea, Evpatoria, 3♂ (Yakovlev); ibid., Koktebel, 21.VIII 1924, 2♀ (Dyakonov); Volgogradskaya Oblast, Volgograd, 1865, 3♀, 5♂ (Bekker); ibid., 1.VII 1906, 2♀ (Wollman); Dagestan, Derbent, 3♀, 3♂ (Bekker); Dagestan, Alexandro-Nevskoe, 9.VIII 1927, 23.VIII 1928, 2♀ (Olsufiev); Astra-

khanskaya Oblast, Sasykoli, 25.VII 1924, 1♀. **Ukraine:** Khersonskaya Oblast, Tsyurupinsk, 22, 26.VI, 21.VII 1924, 14.VII 1926, 3♀, 2♂ (Fedorov, Znoiko). **Azerbaijan:** Arax river, Kurugai, 20.VIII 1924, 3♂ (Dovnar-Zapolsky); ibid., Bekmenly, VII 1925, 2♂ (Dovnar-Zapolsky). **Kazakhstan:** Zapadno-Kazakhstanskaya Oblast, "Bukeevskaya", 1♀ (Kharuzin); ibid., Ryn-Peski, 1♂ (coll. F. Morawitz). **Iran:** Ungyut-Mugan, 19.III 1901, 7.III 1927, 1♀, 1♂ (Bocharnikov); Kuru-Chai, 20.VIII 1928, 5♂ (Dovnar-Zapolsky).

DISTRIBUTION. France, Portugal, Spain, Italy (including Sicily and Sardinia), Serbia, Greece (including Crete and Rhodes), Slovakia, Hungary, Romania, Bulgaria, Cyprus, Ukraine, Turkey, Israel, Saudi Arabia, Yemen, Russia (Crimea, *Volgogradskaya Oblast, Rostovskaya Oblast, *Dagestan, Astrakhanskaya Oblast), Azerbaijan, Kazakhstan, Turkmenistan, Iran, the Canary Islands, Mauritania, Western Sahara, Morocco, Algeria, Tunisia, Libya, Egypt, Chad, Sudan, Ethiopia, Somalia, Madagascar.

Bembix pallida Radoszkowski, 1877

Bembex (!) *pallida* Radoszkowski, 1877:50, ♀, ♂ (syntypes – ♀♂, Uzbekistan, Shakhimardan, [ZMMU]); Handlirsch, 1893: 709; de Dalla Torre, 1897: 510; Gussakovskij, 1935.

Bembix pallida: Islamov, 1970: 63, 64; Bohart & Menke, 1976: 548; Kazenas, 1978: 87, 89; Pulawski, 1978: 208, 209; Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 100; Shkuratov, 2000: 57; Kazenas, 2001: 50; Gorobchishin & Protsenko, 2004: 39; Kazenas, 2007: 93; Prisniy, 2012: 51; Protsenko, Fateryga & Ivanov, 2014: 30.

MATERIAL. **Hungary:** "Hungary centralis", 1♂ (coll. F. Morawitz). **Tajikistan:** Yagnob river, 1♂ (coll. F. Morawitz); southern slope of Hissar ridge, Gushari, 1.VIII 1930, 1♀ (Kuznetsova); West Pamir, Kala-i-Vamor, 5.VII 1937, 2♀ (Luppova); ibid., Vanch river, 7.IX 1946, 1♀ (Stakelberg); 35 km N Dushanbe, Kwak tract, 27.VIII 1937, 2♂ (Gussakovskij); near Dushanbe, Kondara gorge, Varzob river mouth, 15.VII 1938, 1♀ (Gussakovskij).

DISTRIBUTION. *Hungary, Greece, Bulgaria, Ukraine, Turkey, Israel, Russia (Crimea, Belgorodskaya Oblast, Rostovskaya Oblast), Uzbekistan, Tajikistan.

Bembix planifrons F. Morawitz, 1891

Bembex (!) *planifrons* F. Morawitz, 1891: 227, ♀ (lectotype [designated here] – ♀, Kazakhstan, Ryn-Peski, "Chanskaja Stawka", [ZISP], examined); Handlirsch, 1893: 869; de Dalla Torre, 1897:511.

Bembex (!) mervensis Radoszkowski, 1893: 64, ♀ (holotype [or syntypes] – ♀, Turkmenistan, Merv, [Kraków]), synonymized by Handlirsch, 1893: 869.

Bembex (!) parvula F. Morawitz, 1897: 155, ♀, ♂ (syntypes – ♀♂, Turkmenistan, Mikhailovskaya [currently Germab], [ZISP]); Gussakovskij, 1933: 296; Myartseva, 1972: 90; syn. n.

Bembix planifrons: Myartseva, 1972: 90; Kazenas, 1972: 142; Bohart & Menke, 1976: 548; Kazenas, 1978: 87, 90; Pulawski, 1978: 208, 210; Kazenas, 1992: 28, 2001: 50, 2002: 132, 2008: 105, 2013: 498.

Bembix parvula: Bohart & Menke, 1976: 548; Kazenas, 1992: 28, 2001: 50.

MATERIAL. Lectotype of *Bembix planifrons* F. Morawitz, 1891 − ♀, Kazakhstan, "Chanskaja Stawka" (Zapadno-Kazakhstanskaya Oblast, Ryn-Peski, Khan Ordasy) (coll. F. Morawitz). **Uzbekistan:** Khiva, 8, 15.VI 1927, 3♂ (Gussakovskij); 15 km N Bukhara, Baga-Abzal, 15.VII 1929, 1♀ (Kuznetsova). **Turkmenistan:** Uzun-Ada, 2♀, 2♂ (coll. F. Morawitz); Annau, 16.VIII, 1♀, 2♂ (Varentsov); right bank of Amu Darya river opposite Chardzhou, IV-V 1884, 1♂ (Regel); Ashgabat, 18.VI 1923, 3♀ (coll. Ushinski); ibid., 10.VII 1928, 1♂ (Gussakovskij); Repetek, 15.VI 1989, 22, 23.VI 1925, 24.VI 1937, 3♀, 10♂ (Semenov, Gussakovskij, Kostylev); Uch-Adzhi, 1-3.V 1929, 2♀, 3♂ (Shestakov); Farab, 12-28.V 1929, 4♀, 3♂ (Shestakov); Karakum, Orta-Kuyu, 21, 24.V 1953, 4♀, 1♂ (Ahrens); 40 km N Serdar, Kara-Bogaz, 21.V-2.VII 1953, 3♀, 5♂ (Odintsova, Steinberg, Maslennikova); North Karakum, Shasenem, 30.V-5.VI 1953, 5♀, 8♂ (Ahrens); 75 km E Krasnovodsk, 15.VII 1953, 1♂ (Ahrens). **Iran:** Kerman, 19.III 1901, 1♂ (Zarudny). **China:** Xinjiang, near Hami, Bugas, 28.VIII 1895, 1♀ (Roborovsky, Kozlov).

DISTRIBUTION. Kazakhstan, Kyrgyzstan, *Uzbekistan, Turkmenistan, Iran, China (Xinjiang).

REMARKS. The study of the material of *B. planifrons* showed unusually large variability in body length (10-15 mm). The smaller individuals (10-12 mm) correspond to *B. parvula* F. Morawitz. The type specimens of *B. parvula* not found in ZISP, but I found in this collection $2\mathfrak{P}$ and $2\mathfrak{T}$ from Turkmenistan with label "Usun-Ada" which identified as *B. parvula* (handwriting label of F. Morawitz). A comparison of these specimens with lectotype of *B. planifrons* F. Morawitz showed no differences between them except body length; therefore I regard *B. parvula* F. Morawitz as a junior subjective synonym of *B. planifrons* F. Morawitz.

Bembix portchinskii Radoszkowski, 1884

Bembex (!) *portchinskii* Radoszkowski, 1884: 26, ♂ (holotype [or syntypes] – ♂, Caucasus, no specific locality [Kraków]); Radoszkowski, 1887: 44.

Bembex (!) seminigra F. Morawitz, 1889: 148, ♂ (holotype – ♂, "Monasterium Pabo" (China, North Gansu, Monastery Pabao (Pabaortasi), on the river Ejin (Eijina river, Edzingol) tributary of Heihe river, 2734 m, 10–11.V.1886, G.N. Potanin) (Potanin, 1950), [ZISP], examined), synonymized by Handlirsch, 1893: 731.

Bembex (!) *kirgisica* F. Morawitz, 1891: 225, ♀ (lectotype [designated here] -♀, Kazakhstan, Ryn-Peski, no specific locality, [ZISP], examined); Handlirsch, 1893: 72; de Dalla Torre, 1897: 504; F. Morawitz, 1897: 153 (description of β); Gussakovskij, 1933: 294; **syn. n.**

Bembex (!) *ganglbaueri* Handlirsch, 1893: 732, ♂ (holotype – ♂, Kazakhstan or Turkmenistan, eastern shore of Caspian Sea, [depositary not indicated, probably Vienna or Kraków]), synonymized by Gussakovskij, 1933: 294; de Dalla Torre, 1897: 505.

Bembix trimaculata Kazenas, 1978: 88, ♀ (lectotype [designated by Kazenas, 1980a] – ♀, Kazakhstan, Alma-Atinskaya Oblast, near Alma-Ata, [ZISP], examined); Kazenas, 2001: 51, 2002: 133; syn. n.

Bembix trimaculata Kazenas, 1980a: 142, \subsetneq (holotype – \subsetneq , Kazakhstan, Alma-Atinskaya Oblast, near Alma-Ata, [ZISP], examined), junior objective synonym and primary homonym of Bembix trimaculata Kazenas, 1978; syn. n.

Bembex portschinskii: Handlirsch, 1893: 731; de Dalla Torre, 1897: 511; Gussakovskij, 1934: 13; Gussakovskij, 1933: 294.

Bembix portschinskii: Tsuneki, 1971a: 213; Bohart & Menke, 1976; Kazenas, 2001: 50.
Bembix kirgisica: Bohart & Menke, 1976: 546; Kazenas, 1978: 88, 90; Pulawski, 1978: 208, 210; Shkuratov, 2002: 140, 2004a: 75.

Bembix ganglbaueri: Bohart & Menke, 1976: 546; Kazenas, 2001: 50.

MATERIAL. Holotype of *Bembex seminigra* F. Morawitz, 1889 – A. Mongolia, "Monasterium Pabo" (Potanin). Lectotype of B. kirgisica F. Morawitz, $1891 - \bigcirc$, Kazakhstan, Ryn-Peski (coll. F. Morawitz). Holotype of Bembix trimaculata Kazenas, 1980 – Ç, Kazakhstan, Alma-Atinskaya Oblast, near Alma-Ata, 5.VIII 1950 (students of Kazakh State University). Russia: Astrakhanskaya Oblast, near Astrakhan, 25.V 1930, 1♀ (Ogloblin). **Kyrgyzstan:** Kyrgyz ridge, 2♂ (Kirichenko). Uzbekistan: boundary of Kyzyl-Kum and Golodnaya Steppe, Syr-Darya river, 12.V 1903, 1♂ (Jacobson); Khiva, 2-17.VI 1927, 2♀, 5♂ (Gussakovskij). **Turkmenistan:** Germab, 1♀, 3♂ (coll. F. Morawitz); Khazar, 1♀ (coll. Wolman); Annau, 16.VIII, $1 \stackrel{\frown}{\searrow}$, $1 \stackrel{\frown}{\circlearrowleft}$ (Varentsov); Uzuzn-Ada, 21.VI 1896, $2 \stackrel{\frown}{\hookrightarrow}$ (Varentsov); Farab, 30.VI 1915, 1♂ (Golbeck); Ashgabat, 25.VII 1924, 1♀, 2♂ (coll. Ushinski); Krasnovodsk, 14.VI 1928, 1♀ (Gussakovskij); Gasan-Kuli, 11.VII 1932, 1♀ (Ushinski); Jebel, 11.VI, 13.VII 1934, 2♀ (Popov); North Karakum, Shasenem, 4-6.VI 1953, 2♀, 2♂ (Ahrens). **Tajikistan:** Shurab, 20.V 1915, 2[□] (Shestakov). **Iran:** Enarik, 19.VIII 1898, 1♂ (Zarudny); Kerman, 19.VIII, 26.IV 1901, 2♂ (Zarudny). **Mongolia:** Hovd Aimag, lower reaches of Bodankin-Gol river, 20 km SW Altai-Somon, 4.VIII 1968, 1♀ (Kozlov); Gobi-Altai Aimag, Tuin-Gol river valley, Orok-Nor lake, 2.VIII 1926, 1♀ (Kirichenko); Gobi-Altai Aimag, Adzh-Bogdo ridge, 10 km SSE Ikh-Obo-Ula mountain, 18.VII 1970, 1♀, 2♂ (Narchuk); Uvurhangai Aimag, Tatsyn-Tsagan-Nur lake, 2-4.VIII 1969, 5♀ (Kozlov); Dundgovi Aimag, Ulan-Khuduk, 28.VIII 1925, 1♀ (Kozlov); Umnugovi Aimag, Sumu-Khuduk, 10.IX 1925, 2♀ (Kozlov); ibid., Shimbitsyn-Gol river, 16.IX 1925, 2♀ (Kozlov); ibid., 60 km E Talyn-Bilgeh-Bulak spring, 17-19.VIII 1969, 3♀ (Kozlov); ibid., 30 km S Ozvrai-Somon, 22.VIII 1969, 1♀ (Kozlov); ibid., 20 km W Barun-Bugatyn-Khuduk well, 25-27.VIII 1969, 2♀ (Kozlov). **China:** Xinjiang, near Hami, Bugas, 21.VIII, 6, 7.IX 1895, 2, 1 (Roborovsky, Kozlov).

DISTRIBUTION. Turkey, Russia (Rostovskaya Oblast, *Astrakhanskaya Oblast), Kazakhstan, *Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Afghanistan, Mongolia, China (*Xinjiang, Qinghai, Inner Mongolia), Western Sahara, Egypt, Sudan.

REMARKS. When designated the holotype of *Bembix trimaculata* Kazenas, 1980, Kazenas (1980a), actually also designated the lectotype of *B. trimaculata* Kazenas, 1978, according to the article 74.6 of the Code (ICZN, 1999). The study of the type specimens of *B. kirgisica* F. Morawitz and *B. trimaculata* Kazenas and a comparison of them with the material on *B. portchinskii* did not reveal significant differences between them, therefore I regard *B. kirgisica* F. Morawitz and *B. trimaculata* Kazenas, 1978 and *B. trimaculata* Kazenas, 1980 as a junior subjective synonyms of *B. portchinskii* Radoszkowski.

Bembix rostrata (Linnaeus, 1758)

Apis rostrata Linnaeus, 1758: 577, sex not indicated (lectotype − ♂, Europe, no specific locality, [London], designated by Day, 1979: 70).

Apis rostrata Gmelin, 1790: 2791, sex not indicated, junior subjective synonyms of Apis rostrata Linnaeus, 1758 (holotype [or syntypes] – Russia, Ural Steppe north of Caspian Sea [probably Orenburgskaya Oblast], [lost]), synonymized by Bischoff, 1940: 70.

Bembex (!) *vidua* Lepeletier de Saint Fargeau, 1845: 264, ♀ (holotype [or syntypes] – ♀, Italy, Lombardia, no specific locality, [Turin]), synonymized by Handlirsch, 1893: 108; Beletskiy, 1873: 80; Yaroshevskiy, 1881: 124.

Bembex (!) rostrata: Eversmann, 1849: 397; Belke, 1853: 433; Kawall, 1857: 24; Assmuss, 1859: 611; Belke, 1859: 71; Siła-Nowicki, 1864: 55, 1865: 55; Wierzejski, 1868: 117; Ivanov, 1872: 152; Wierzejski, 1874: 259; Becker, 1880: 150; Yaroshevskiy, 1881: 124; F. Morawitz, 1889: 138, 1891: 225; Handlirsch, 1893: 764; F. Morawitz, 1893a: 112; Handlirsch, 1895: 1002; de Dalla Torre, 1897: 512; N. Arnold, 1902: 89; W. Schulz, 1904: 94; Kohl, 1913: 15; Kerenskiy, 1919: 33; Shestakov, 1925: 36; Kokujev, 1927: 71; Wnukowskij, 1927: 32; Bischoff, 1930: 218; Müller, 1930: 181; Gussakovskij, 1934: 13.

Bembix rostrata: Parker, 1929: 114; Wengris, 1962: 205; Myartseva, 1963: 60, 1965: 91; Kazenas, 1972: 141; Bohart & Menke, 1976: 548; Kolesnikov, 1977: 318; Kazenas, 1978: 86, 89; Pulawski, 1978: 208, 209; Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 100; Nemkov, 1986: 108; Kuznetsova, 1990: 19; Chinin, 1991: 111; Budrys, 1992: 29; Blagoveshchenskaya, 1994: 90; Nemkov et al., 1995: 466; Minoranskiy & Shkuratov, 1996: 81; Voblenko, Gorobchishin & Nesterov, 1996: 15; Wu & Zhou, 1996: 157; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Ananeva & Kochetkov, 1999: 7; Shkuratov, 2000: 57; Kazenas, 2001: 50, 240, 2002: 132; Shkuratov, 2002: 140; Shlyakhtenok & Skibinska, 2002: 35; Kazenas, 2004b: 35; Shkuratov, 2004a: 76, 2004b: 166; Nazarova, 2005: 94; Shorenko, 2005a: 168; Gorobchishin, 2006: 142; Shlyakhtenok, 2006: 113; Baghirov, 2007: 93; Evans & O'Neill, 2007: 176; Kazenas, 2007: 93; Danilov, 2008: 348; Nemkov, 2008: 25; Ivanov, Fateryga & Filatov, 2009: 42; Nemkov, 2009: 142; Ruchin, Antropov & Shibayev, 2009: 170; Mokrousov, 2010: 61; Shorenko & Konovalov, 2010: 14; Baghirov, 2011: 141; Mokrousov, Berezin & Egorov, 2011: 66; Protsenko & Drozdovskaya, 2011: 91; Nemkov, 2012: 123; Prisniy, 2012: 51; Shibayev & Polumordvinov, 2012: 278; Akulov & Proshchalykin, 2013: 118; Kazenas, 2013: 498; Mokrousov, Ruchin & Egorov, 2013: 199; Shlyakhtenok, 2013: 237; Mokrousov & Vafin, 2014: 55; Protsenko, Fateryga & Ivanov, 2014: 30; Ruchin & Antropov, 2014: 37.

MATERIAL. **Russia:** Leningradskaya Oblast, Zherebutskoe lake, 22.VIII 1914, 1♀; ibid., Luga, 23.VI 1934, 1♂ (Shtakelberg); Kostromskaya Oblast, Baidarki, 26, 27.VII 1922, 1♀, 1♂ (Gussakovskij); ibid., Kostroma, 11.VII 1924, 1♀; Stavropolskii Krai, Stavropol, 21.VII 1985, 4♀, 2♂ (Nemkov); Chuvashiya, Ilinka, 24.VII 1928, 1♀; Orenburgskaya Oblast, Mayachnaya, 21.VII 1933, 1♀ (Zimin); Tomskaya Oblast, Tomsk, 25-30.VIII 1912, 1♀ (Johansen); Altai, Barnaul, 12.VII 1922, 1♂ (Dodonov); Novosibirskaya Oblast, Ordynskoe, 29.VII 1926, 1♀ (Levchuk); Krasnoyarskii Krai, Krasnoyarsk, 1♀ (coll. F. Morawitz); Irkutskaya Oblast, Angarsk, 11.VII-9.IX 1983, 8♀, 10♀ (Nemkov); ibid., Bolshaya Elan, 24.VII 1983, 2♂ (Nemkov); ibid., 15 km E Ust-Orda, Ordinsk, 31.VII 1994-9.VII 2009, 26♀, 26♂ (Nemkov). **Estonia:** Peedu, 14.VII 1951, 1♂ (Stakelberg). **Moldova:** Gagauzia, Baurchi, 28.VI 1911, 1♀ (Chernavin). **Ukraine:** Poltavskaya Oblast, Zintsy, 18.VI

1922, 1♂ (Belgovsky); ibid., Yareski, VI 1922, 24, 30.VII 1925, 1♂ (Belgovsky, Fabri); ibid., Poltava, 20.VI 1923, 1♀ (Belgovsky); Khersonskaya Oblast, Tsyurupinsk, 1.VIII 1914, 1♀, 1♂ (Fedorov). **Azerbaijan:** Belokany, 6.VIII 1928, 2♀ (Bocharnikov). **Kazakhstan:** Zapadno-Kazakhstanskaya Oblast, Kirsanovo, Samodurovo lake, 13.VI 1949, 1♂ (Rudolf); ibid., Ural river, 14.VII 1952, 1♀ (Slepyan); ibid., Yanvartzevo, 10.VI-13.VIII 1949, 19, 24.VI 1950, 7♀, 6♂ (Rudolf, Steinberg, Popov); ibid., Kharkin, 10, 16.VII 1951, 1♀ (Rudolf, Steinberg); Kustanaiskaya Oblast, Turgai, 1♂ (coll. F. Morawitz); Vostochno-Kazakhstanskaya Oblast, Semipalatinsk, 1♀ (coll. F. Morawitz). **Uzbekistan:** Khiva, 12.VI 1927, 1♀ (Gussakovskij); Kaunchi, 13.VI 1931, 1♀, 2♂ (Gussakovskij). **Turkmenistan:** Farab, 12-28.V 1929, 1♀, 1♂ (Shestakov). **Mongolia:** Töv Aimag, 25 km SW Ulan Bator, 30-31.VII 1961, 1♀ (Zaitsev).

DISTRIBUTION. Netherlands, Belgium, France, Portugal, Spain, Switzerland, Italy (including Sicily and Sardinia), Denmark, Germany, Austria, Croatia, Serbia, Albania, Greece, Poland, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Sweden, Finland, *Estonia, Latvia, Lithuania, Belarus, *Moldova, Ukraine, Turkey, Russia (Leningradskaya Oblast, Nizhegorodskaya Oblast, Yaroslavskaya Oblast, *Kostromskaya Oblast, Moskovskaya Oblast, Ivanovskaya Oblast, Vladimirskaya Oblast, Bryanskaya Oblast, Belgorodskaya Oblast, Ryazanskaya Oblast, Voronezhskaya Oblast, Penzenskaya Oblast, Volgogradskaya Oblast, Rostovskaya Oblast, *Stavropolskii Krai, Astrakhanskaya Oblast, Chuvashiya, Tatarstan, Mordoviya, Ulyanovskaya Oblast, Samarskaya Oblast, Orenburgskaya Oblast, *Tomskaya Oblast, *Novosibirskaya Oblast, Altai, Krasnoyarskii Krai, Irkutskaya Oblast), *Azerbaijan, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Afghanistan, Mongolia, China (Inner Mongolia), Western Sahara, Morocco, Algeria, Tunisia.

Bembix tadzhika Kazenas, 1980

Bembix tadzhika Kazenas, 1980b: 53, ♂ (holotype – ♂, Tajikistan, "Tigrovaya Balka" Nature Reserve, [ZISP], examined); Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 101; Nazarova, 1998: 42; Kazenas, 2001: 51.

MATERIAL. Holotype of *Bembix tadzhika* Kazenas, 1980 – ♂, Tajikistan, "Tigrovaya Balka" Nature Reserve, 23.IV 1978 (Nazarova). **Uzbekistan:** 15 km N Bukhara, Baga-Abzal, 24.V 1932, 1♀ (Kuznetsova). **Turkmenistan:** Uch-Adzhi, 1-3.V 1929, 2♀ (Shestakov); Karakum, Orta-Kuyu, 20-24.V 1953, 4♀ (Ahrens); 100 km NE Serdar, Kirpili, 29.IV 1953, 1♂ (Ahrens).

DISTRIBUTION. *Uzbekistan, *Turkmenistan, Tajikistan.

Bembix transcaspica Radoszkowski, 1893

Bembex (!) transcaspica Radoszkowski, 1893: 63, ♂ (holotype [or syntypes] – ♂, "Transcaspia", probably Turkmenistan, no specific locality, [Kraków]); Handlirsch, 1893: 738; de Dalla Torre, 1897: 515; Gussakovskij, 1933: 295, 1935: 444.

Bembix kazakhstanica Kazenas, 1978: 85, 88, ♀, ♂ (lectotype [designated by Kazenas, 1980a] -♀, Kazakhstan, Alma-Atinskaya Oblast, Ili river, Kapchagai tract, [ZISP], examined); Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 100; Nazarova & Gafarov, 1986: 71; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Kazenas, 2001: 50, 2002: 131; Nazarova, 2004: 108, 2005: 94; Kazenas, 2013: 498; **syn. n.**

Bembix kazakhstanica Kazenas, 1980a: 139, ♀, ♂, junior synonym and primary homonym of Bembix kazakhstanica Kazenas, 1978, (holotype – ♀, Kazakhstan, Alma-Atinskaya Oblast, Ili river, Kapchagai tract, [ZISP], examined); syn. n.

Bembix transcaspica: Myartseva, 1972: 90; Bohart & Menke, 1976: 549; Kazenas, 1978: 87; Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 100; Nazarova & Gafarov, 1986: 71; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Kazenas, 2001: 51, 2002: 133; Nazarova, 2005: 94.

MATERIAL. Holotype of *Bembix kazakhstanica* Kazenas, 1980 – ♀, Kazakhstan, Alma-Atinskaya Oblast, Ili river, Kapchagai tract, 20.VIII 1967 (Kazenas); paratype – ♂, ibid. **Kazakhstan:** Alma-Atinskaya Oblast, Akshii, 23.VII 1935, 1♀ (Olsufiev). **Uzbekistan:** Khiva, 15, 21.VI 1927, 1♀, 2♂ (Gussakovskij); Nazarkhan, 4.VIII 1946, 2♀ (Lutta). **Turkmenistan:** Farab, 2♂ (Wollman); Bayramali, 5.V 1917, 1♀ (Pliginski); Ashgabat, 25.VII 1924, 1♀, 1♂ (coll. Ushinski); Kaka, 7.VI 1928, 1♂ (Gussakovskij); Farab, 12-28.V 1929, 1♂ (Shestakov); Tashauz, 4.VIII 1931, 1♂ (Ushinski); Jebel, 12-13.VI, 23.VII 1934, 2♀, 2♂ (Popov); 40 km N Serdar, Kara-Bogaz, 9, 18.VI 1953, 2♀, 6♂ (Odintsova, Kryzhanovsky); Akhcha-Kuima, 3.VII 1953, 1♀, 2♂ (Odintsova). **Tajikistan:** Kangurt, 27.VIII 1931, 1♂ (Fursov); near Kulyab, 8.VIII 1933, 1♂ (Popov); Kurgan-Tyube, 12.VIII 1948, 1♂ (Popov). **China:** Xinjiang, near Hami, Bugas, 21.VIII-7.IX 1895, 4♀, 6♂ (Roborovsky, Kozlov).

DISTRIBUTION. Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Iraq, Iran, *China (Xinjiang).

REMARKS. When designated the holotype of *B. kazakhstanica* Kazenas, 1980, Kazenas (1980a), actually also designated the lectotype of *B. kazakhstanica* Kazenas, 1978 according to the article 74.6 of the Code (ICZN, 1999). A comparison of the material on *B. transcaspica* Radoszkowski with the type specimens of *B. kazakhstanica* Kazenas showed their identity, therefore I regard *B. kazakhstanica* Kazenas, 1978 and *B. kazakhstanica* Kazenas, 1980 as a junior subjective synonym of *B. transcaspica* Radoszkowski.

Bembix turca Dahlbom, 1845

Bembix turca Dahlbom, 1845: 488, ♂ (syntypes – ♂♂, Greece, Rhodes, no specific locality, [Stockholm]); Handlirsch, 1893: 859; de Dalla Torre, 1897: 515; de Beaumont, 1957: 609; Kazenas, 1972: 142, 1974: 109; Bohart & Menke, 1976: 549; Kazenas, 1978: 86, 88; Pulawski, 1978: 208, 209; Nazarova & Baratov, 1981: 101; Minoranskiy & Shkuratov, 1996: 81; Nazarova, 1998: 42; Baratov & Nazarova, 1980: 77; Shkuratov, 2000: 57; Kazenas, 2001: 51, 2002: 133; Shkuratov, 2004a: 76, 2004b: 166; Kazenas, 2013: 499; Protsenko, Fateryga & Ivanov, 2014: 30.

Bembex (!) melanura F. Morawitz, 1889: 141, ♂ (holotype – ♂, "Mongolia, Monasterium U-tai" [China, Gansu], [ZISP], examined); Handlirsch, 1893: 858; de Dalla Torre, 1897: 508; Gussakovskij, 1933: 296, 1935: 444; syn. n.

Bembex (!) asiatica Radoszkowski, 1893: 65, ♂ (holotype [or syntypes] – ♂, Turkmenistan, Serax, [Kraków]), synonymized by Handlirsch, 1893: 858.

Bembix gobiensis Tsuneki, 1971a: 211, & (holotype – &, Mongolia, Hovd Aymag, Somon Bulgan, [Budapest]); Bohart & Menke, 1976: 546; syn. n.

Bembix atra Kazenas, 1978: 86, ♀ (lectotype [designated by Kazenas, 1980a] – ♀, Kazakhstan, Alma-Atinskaya Oblast, Boguty mountains, [ZISP], examined); Baratov & Nazarova, 1980: 75; Nazarova & Baratov, 1981: 98; Nazarova, 1998: 42; Kazenas, 2001: 49, 2002: 130; syn. n.

Bembix atra Kazenas, 1980a: 137, \subsetneq , junior synonym and primary homonym of Bembix atra Kazenas, 1978, (holotype – \subsetneq , Kazakhstan, Alma-Atinskaya Oblast, Boguty mountains, [ZISP], examined); **syn. n.**

Bembix melanura: Bohart & Menke, 1976: 547; Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 100; Wu & Zhou, 1996: 158; Kazenas, 2001: 50; Hua, 2006: 277.

MATERIAL. Holotype of *Bembix melanura* F. Morawitz, 1889 – ♂, China, Gansu, "Monasterium Utai. Potanin", "к. Ф. Моравица". Holotype of Bembix atra Kazenas, 1980 – ♀, Kazakhstan, Alma-Atinskaya Oblast, Boguty mountains, 11.VII 1968 (Kazenas). **Russia:** Crimea, Evpatoria, 14.VIII 1916, 1♀ (Pliginski); ibid., Enychary, 3.VIII 1924, 1♀ (Dyakonov); Volgogradskaya Oblast, Volgograd, 1872, 26 (Bekker); ibid., 16-20.VIII 1929, 16 (Shestakov); Astrakhanskaya Oblast, Astrakhan, 1♀ (coll. F. Morawitz). **Greece:** "Epirus", 1♂ (coll. Shestakov). **Poland:** Varna, 9.VIII 1956, 1 (Pulawski). **Ukraine:** Poltavskaya Oblast, Zintsy, 13.IX 1923, 2♀ (Belgovsky); ibid., Yareski, 10.VII 1922-5.IX 1925, 5♀, 6♂ (Belgovsky, Fabri). Kazakhstan: Zapadno-Kazakhstanskaya Oblast, Ural river, 14.VII 1952, 1♂ (Slepyan); Alma-Atinskaya Oblast, near Zharkent, Ili river, 5.VII 1948, 2♀ (Bei-Bienko); Yuzhno-Kazakhstanskaya Oblast, Saryagach, 11.VI 1926, 1d (Prinada). **Turkmenistan:** Krasnovodsk, 1d (coll. F. Morawitz); Krasnovodsk, 3.VI 1901, 19.VII 1934, 19.VII 1953, 4& (Anger, Popov, Ahrens); Ashgabat, 25.VII 1924, 1♀, 3♂ (coll. Ushinski); Repetek, 22.VI-15.VII 1925, 20.VII 1934, 2♀, 3♂ (Gussakovskij, Kostylev); Kara-Kala, 27.V 1953, 1♂ (Steinberg); 40 km N Serdar, Kara-Bogaz, 31.V 1953, 1♂ (Steinberg); 75 km E Krasnovodsk, 15.VII 1953, 1, 2 (Ahrens). **Tajikistan:** southern slope of Hissar ridge, Dara-i-Hodzh, 31.VIII 1930, 1& (Kuznetsov); near Dushanbe, Kondara gorge, Varzob river mouth, 12.VI-7.IX 1937, 2♀, 4♂ (Gussakovskij); Dushanbe, botanical garden, 22.VII 1939, 24.IX 1946, 1♀, 1♂ (Gussakovskij, Kostylev); Vanch river, 15.IX 1943, 1♀ (Stakelberg). Iran: Bazman-Tagab, 9.VIII 1898, 1 (Zarudny); Khorasan, 5-6.VIII 1901, 1♂ (Zarudny), Mongolia: Hovd Aimag, 10 km N Uench-Somon, 2-3.VIII 1968, 4\(\frac{1}{2}\) (Kozlov); Gobi-Altai Aimag, Adzh-Bogdo ridge, 10 km SSE Ikh-Obo-Ula mountain, 18.VII 1970, 12 (Narchuk); Bayanhongor Aimag, Ekhin-Gol oasis, 11-14.VIII 1969, 1♀ (Kozlov); Umnugovi Aimag, 30 km SSE Sujin-Khuduk well, 3.VIII 1967, 1♀ (Kerzner); ibid., 40 km SSE of Nomgon, 9.VIII 1967, 1♀ (Kerzner). **China:** Xinjiang, near Hami, Bugas, 20.VIII-6.IX 1895, 2♀, 4♂ (Roborovsky, Kozlov).

DISTRIBUTION. Albania, Greece (including Rhodes), Poland, Romania, Bulgaria, *Ukraine, Turkey, Russia (Crimea, Volgogradskaya Oblast, Rostovskaya Oblast, *Astrakhanskaya Oblast), Kazakhstan, Turkmenistan, Tajikistan, Iran, Afghanistan, Mongolia, China (*Xinjiang, Gansu), Libya, Egypt.

REMARKS. When designated the holotype of *B. atra* Kazenas, 1980, Kazenas (1980a), actually also designated the lectotype of *B. atra* Kazenas, 1978 according to the article 74.6 of the Code (ICZN, 1999). The study of extensive material on *B. turca* Dahlbom (including specimens from Mongolia, a type locality of *B. gobiensis* Tsuneki) revealed a significant variability of this species in body colouration, punctuation and pubescence. The diagnostic characters of *B. gobiensis* listed by Tsuneki (1971a) are within the species variability of *B. turca* Dahlbom. A comparison of the type specimens of *B. melanura* F. Morawitz and *B. atra* Kazenas with the material on *B. turca* Dahlbom did not reveal significant differences between them, therefore I regard *B. melanura* F. Morawitz, *B. atra* Kazenas, 1978, *B. atra* Kazenas, 1980, and *B. gobiensis* Tsuneki as a junior subjective synonyms of *B. turca* Dahlbom.

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